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Facility Management Competencies in Technical Institutions

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Abstract

The emerging of facility management in Malaysia was started in the middle of year 1990 with the aims of ensuring national facilities well function and have a maximum life cycle. A regard to industry excellence, facility management personnel must have certain competencies. This study aims to identify the facility management competencies in technical institutions. A total of 34 facility management personnel participated in this study. Data were collected using a questionnaire. The finding shows that all elements 24 items of facility management competencies obtain mean scores above 4.0. This indicates that the competencies element is very important and required in carrying out the responsibility for facility management in technical institutions.

Keywords: Facility Management; Competency; Competencies; Technical; Institution

1. Introduction

Facilities Management or commonly abbreviated as FM is a multidisciplinary discipline that ensures functionality of the built environment by integrating people, place, process and technology. Development of FM in Malaysia was introduced in the middle of year 1990. The aim is to ensure national facility works well and has a maximum life cycle. Therefore, the involvement of facilities managers from various professional backgrounds will contribute to the success of the FM in an organization.

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Nevertheless, they must be competent to deal with complex problems, assume high levels of responsibility, have the ability to affect the workplaces of the future and be able to deal with all levels of an organization and its suppliers, consultants and providers (Wiggins, 2006). As an organization which is focused and related to customer service, higher education institutions should take into account the facilities required by customers as to fulfill their comfort (Kotler, 1998). In performance of educational facilities, the organization should be in a situation conducive to good work to improve the quality of learning outcomes (Lackney, 1999). Caused by non-employees in the FM field manage the facility polytechnic, percentage of dissatisfied students of facilities provided and increase the number of polytechnics and increase enrollment (Mariah and Mohammed, 2011), therefore this research is needed to fill the lack. To produce a situation that individuals should have the competence to manage the facilities required for him to do the work so as to achieve the desired performance (Sanghi, 2004). This study aims to identify the FM competencies in technical institution of Malaysia. The findings will give a representation of the development of FM competency model in the technical institution system in Malaysia.

1.1. Component of Facility Management Competencies

Even though the FM industry has been established since 1960, but the reality is that less attention has been given to the competencies needed to maximize the benefits they deserve. In the United Kingdom, ten years ago, has increased interest in the application of the competency framework for the development and selection of expert managers and general managers. Most of the effort tortuous in developing framework is more focused on the role of facility managers (Roberts, 2001). Therefore, the professional bodies such as IFMA and BIFM have adopted the competency framework as a basis for professional accreditation in the field of FM (Clark and Hinxman, 1999). Each of these competencies area shares some of the same competence, for example, in the field of human resources, communication competence and communication of information within the same field. Therefore, Markus and Cameron (2002) have identified five (5) areas of FM competencies required to realize the mission of the organization such as Maintenance operations, Financial control, Management of change; User interfacing; and Support. Apart from that, there are 13 proposed competencies for directors and senior managers of the facility should be noted that the issues related to the environment, building design visionary, relevant laws, project management, research and analysis, process FM, real estate portfolio management, risk management, stress management, marketing, monitoring, conflict management and time management (Clark and Hinxman, 1999).

While Payne (2000), in turn, has listed four (4) areas in need for professionals involved in FM. He did not specify these areas as competencies but researchers claim that these fields can be used as a guide for identifying FM competencies in the Polytechnic. Among these areas are (i) Property and built environment professionals skilled architects, legal services, space planners and quantity surveyors. (ii) The way that people interact with the built environment requires professional input of human resources, and building services and environmental engineers. (iii) The technical expertise of the maintenance staff. (iv) A process that occurs in the building, including catering such as, cleaning, security, mail room, reprographics, and practical management of the operations of diverse backgrounds professionals. Aside from Payne, in 2005 there was a further study in which the author has listed 10 key features for a facilities manager to be used as a reference for FM competencies. Such features are understanding the organization, culture, customers and their needs; understand and express service requirements and targets; brokerage services to other stakeholders; manage risk; managing contractors and monitor their performance; benchmark outsourcing services; developing the supply of services, and strategies to deliver services; understanding the strategic planning; protect public funds if applicable; and develop internal

skills through education, training, and professional development (Atkins and Brooks, 2005). After seeing the necessary FM competencies and features that should be there for a facility manager, researchers have taken into account all the things, which have been discussed previously in the preparation of the questionnaire. However, the literature to adapt competencies required by the industry based on the professional body and faculty FM at the university was carried out in 2005 (Warren and Heng, 2005). They have listed 28 individual competencies and seven (7) areas required by the industry. Similarly, interviews finding with representatives of professional FM organizations in other countries (National Research Council, 2008).

Therefore, there will be different competency areas from the two literature findings of operations and maintenance management. Previous research has positioned the management of operations and maintenance as one of the competencies under the competence to manage the service. However, for the context of FM competencies in polytechnics, researchers claim maintenance operations competencies should be used as a competency area. The reason is it involves a lot of tasks that need to be detailed so that the process FM goes efficiently. Uncertainty refers to the competencies issued by IFMA, operation and maintenance competencies are important and usually it is an area of key competencies (IFMA, 2010; HKIFM and APPA, 2010; Payne, 2000; Markus and Cameron, 2002; and the National Research Council, 2008). According to the pilot of study, the most important element of FM competency areas at Polytechnic is Leadership and Management, Operations and Maintenance, Managing Resources, Managing People and Managing the Working Environment (Mariah et al., 2012). Subsequently, Table 1 shows the five (5) most important elements of FM competency areas in the Polytechnic.

Table 1. The five elements of polytechnic FM competency areas (Mariah et al., 2012)

Element of facility management competencies area	No. of item	Source
1. Leadership and Management	6	IFMA, 2010; FMA Australia, 2010; RICS; HKIFM, 2010; APPA, 2010; Clark & Hinxman, 1999; Payne, 2000; Markus & Cameron, 2002; Atkin & Brooks, 2005; Van de Ende, 2006; National Research Council , 2008
2. Managing People	5	IFMA, 2010; BIFM, 2010; FMA Australia, 2010; RICS; HKIFM, 2010; APPA, 2010; Payne, 2000; Markus & Cameron, 2002; Atkin & Brooks, 2005; Van de Ende, 2006; National Research Council , 2008
3. Managing The Working environment	3	IFMA, 2010; BIFM, 2010; FMA Australia, 2010; HKIFM, 2010; APPA, 2010; Clark & Hinxman, 1999; Payne, 2000; National Research Council , 2008
4. Managing Resources	5	IFMA, 2010; BIFM, 2010; FMA Australia, 2010; RICS; HKIFM, 2010; APPA, 2010; Clark & Hinxman, 1999; Markus & Cameron, 2002; Atkin & Brooks, 2005; Van de Ende, 2006; National Research Council , 2008
5. Operation and Maintenance	5	IFMA, 2010; BIFM, 2010; HKIFM, 2010; APPA, 2010; Clark & Hinxman, 1999; Payne, 2000; Markus & Cameron, 2002; National Research Council , 2008

1.2. Objective of the study

The study aimed to explore the FM competencies in technical institution. The objective of the study is to identify the importance of element FM competencies essential by the technical institution such as polytechnic.

2. Methodology

To accomplish this study, the researchers have identified two (2) polytechnics for obtaining the data. The study used a descriptive research design and was carried out by using the questionnaire survey method. The data were analysed using the Statistical Package for the Social Sciences version 19.0.

2.1 The Samples

A purposive sampling method was chosen, which involves 34 FM personnel. 34 sets questionnaires were distributed and 70.27% were received from the respondent.

2.2 Instrumentation

This study used a questionnaire instrument that consists of two sections, A and B. Section A consists of three (3) items related to individual demographics. Section B contains 24 items about the importance of the element of competencies adapted from literature as a mention on Table 1.

2.3 Reliability of the instrument

The Cronbach's Alpha reliability test was carried out to determine the reliability of the responses obtained for each of the FM competencies listed in the questionnaire. Nunnally and Bernstein (1994) suggested that Cronbach's Alpha value adequate greater than 0.7. In this study, Cronbach Alpha values of all variables are more than 0.9 of which are yonder the value of reliability needed (refer Table 2).

3. Result and Discussion

Table 2 shows the result of the FM competencies in polytechnics. It was agreed upon by the respondents that the levels of FM competencies are high (Nunnaly, 1978) with the mean score for Risk management involved in the work process done was 4.82. Follow by monitor the procurement, installation, operation, maintenance and disposal of furniture and equipment; and financial management in managing organizational resources (4.74). Next is works related to resource procurement (4.71) and logistics management (4.68). Three competencies have mean score 4.65 namely (i) Implement operation and maintenance management (ii) monitor the procurement, installation, operation, maintenance and disposition of internal building system (iii) Workplace management rapport. To get a stronger representation of the mean scores of each competency, Table 2 has been prepared in accordance with the order of the mean scores. The results of the study supported the results of past studies that found that the most important roles of a facility manager are operations and maintenance; the most important skills to be a qualified facility manager is leadership skills; the most important body of knowledge to be a qualified facility manager is managing people; and the most training need is FM (Verster and Marx, 2006; Jayanthi, 2007).

Table 2 : Mean score and Cronbach's Alpha for the facility management competencies

Facility management competencies	Mean	Std. Deviation	Cronbach's Alpha if Item Deleted
Risk management involved in the work process done	4.82	0.387	0.910
Financial management in managing organizational resources	4.74	0.448	0.907
Monitor the procurement, Installation, Operation, Maintenance And Disposal Of Furniture And Equipment	4.74	0.448	0.904
Works related to Resource procurement	4.71	0.719	0.908
Logistic Management	4.68	0.535	0.909
Workplace Management rapport	4.65	0.544	0.905
Monitor the procurement, installation, operation, maintenance and disposition of internal building system	4.65	0.485	0.905
Implement Operation and Maintenance Management	4.65	0.485	0.905
Effective Communication	4.56	0.613	0.905

Table 2 : Mean score and Cronbach's Alpha for the facility management competencies (continue)

Facility management competencies	Mean	Std. Deviation	Cronbach's Alpha if Item Deleted
Manage the assigned personnel to the facility function	4.53	0.615	0.905
Manage the building structure and Internal Permanent fittings maintenance	4.53	0.563	0.905
Plan and sort the facility function	4.50	0.564	0.906
Professional practices in the management	4.50	0.615	0.905
Ability to manage change	4.50	0.615	0.905
Regard the Health, Safety and Physical Safety Management in the organization	4.50	0.663	0.910
Manage the delivery/performance of the facility service	4.47	0.615	0.905
Quality management in managing the organization resource	4.47	0.507	0.910
Information management in managing the organization resource	4.47	0.615	0.903
Cooperation with Suppliers and Specialists for matters/work process related to Facility management	4.44	0.613	0.909
Human resource Management in Facility Management work process	4.38	0.739	0.903
Space Management	4.38	0.739	0.906
Monitor the procurement, Installation, Operation, Maintenance And Disposition of Exterior building Elements	4.35	0.95	0.914
Manage the facility function	4.29	0.579	0.903
Environmental Issues (such as recycling, energy saving, etc.)	4.09	0.83	0.915

4. Conclusion

The study finding indicates that, overall, FM personnel imperative these competencies. The result can be used as a basis to prepare for a university curriculum in Malaysia for the relevant facility manager. The researchers hope that this finding would become the catalyst for a more comprehensive study. It should be noted that Malaysian polytechnic FM competency study is not well documented in the literature. To provide stronger evidence for the adequacy of the results, future research is suggested to examine with larger samples involving all polytechnics in Malaysia and all item of the eight FM competency area (Mariah et al., 2012). This study also can be used by higher education institutions to ensure that the FM personnel obligation has those competencies. It is useful to ensure that the FM system in higher education institutions is in high quality and thus can intensify the image of the institution in the world and widespread the transformation plan set by the government.

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